

Dry to Mesic Forest and Woodland Communities

Carolina Hemlock Bluff

This community type is considered rare in North Carolina and worldwide. This is due to the range of Carolina hemlock (*Tsuga caroliniana*), which is primarily restricted to the mountains of southern Virginia, North Carolina, eastern Tennessee, northwestern South Carolina, and northern Georgia. The community usually occurs on rocky, acidic soils on steep slopes, bluffs, and gorge walls, sometimes extending onto adjacent flatter areas. The examples in Stokes County are highly significant as disjunct occurrences and are unusual in their position along small stream gorges at relatively low elevations. Whether the community is fire-tolerant or not is not known. The canopy is often well developed, though it may not be completely closed. It is dominated by Carolina hemlock, often with chestnut oak, pitch pine, Table Mountain pine, Canada hemlock, sourwood, red maple, or red oak. The subcanopy is not generally well developed, but a dense shrub layer of mountain laurel (*Kalmia latifolia*), great rhododendron (*Rhododendron maximum*), Catawba rhododendron (*Rhododendron catawbiense*), black huckleberry (*Gaylussacia baccata*), or blueberries (*Vaccinium* spp.) is usually present. Its typically sparse herb layer may contain teaberry (*Gaultheria procumbens*), pipsissewa (*Chimaphila maculata*), partridgeberry (*Mitchella repens*), and galax (*Galax urceolata*). The ground layer may be crowded by mosses and lichens. The community often grades to the Chestnut Oak Forest or Montane Acidic Cliff community types.

Pine--Oak/Heath

The Pine--Oak/Heath community type is a distinctive, fairly common community type in the mountains of western North Carolina that also occurs in the Piedmont at a few locations in the Sauratown Mountains, the Brushy Mountains, the South Mountains, and Crowders and Kings Mountains. It occurs on sharp ridges, knobs, low elevation peaks, and dry, south-facing slopes on soils that are thin, rocky, very dry, and very acidic. It is believed that the community is maintained by periodic fire. It is characterized by an open, stunted canopy of Table Mountain pine, Virginia pine, pitch pine, chestnut oak, scarlet oak, and hickories. The Stokes County examples are unique in having pitch pine, Table Mountain pine, and Virginia pine occurring together, rather than separated by elevation as is typical in other areas. The understory typically contains species such as sourwood, sassafras, black gum, persimmon, blackjack oak, post oak, and oaks and hickories. The characteristically dense shrub layer can be species-diverse, though Piedmont examples typically support only mountain laurel (*Kalmia latifolia*), hillside blueberry (*Vaccinium pallidum*), deerberry (*Vaccinium stamineum*), flame azalea (*Rhododendron calendulaceum*), mountain fetterbush (*Pieris floribunda*), black huckleberry (*Gaylussacia baccata*), maleberry (*Lyonia ligustrina*), bristly locust (*Robinia hispida*), the rare bear oak (*Quercus ilicifolia*), and the rare shinyleaf meadowsweet (*Spiraea betulifolia* ssp. *corymbosa*). Herbs may include wavy hairgrass (*Deschampsia flexuosa*), grass-leaved goldenaster (*Pityopsis aspera* var. *adenolepis*), pipsissewa (*Chimaphila maculata*), eastern bracken (*Pteridium aquilinum*), trailing arbutus (*Epigaea repens*), downy rattlesnake-plantain (*Goodyera pubescens*), moccasin flower (*Cypripedium acaule*), greater coreopsis (*Coreopsis major*), silky oatgrass